UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,936	08/02/2001	Madhu Rao	81862P248	8366

7590 06/10/2005	EXAMINER
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DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 October 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is **non-final**.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-81* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-81* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Detailed Action

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this Section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2.   Claims 1-81 are rejected under 35 USC 102(a) as being anticipated by Cisco

Document (Cisco Publication: Frame Relay ELMI Address Registration, Posted

On Dec. 6, 2000:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios121/121newft/121t/121t3/tf

ripar.htm).

3.   Regarding claim 1, Cisco teaches a system, comprising:

- a local area network management system to manage and configure

  a network of routers (Cisco, Sec. of Feature Overview "... the NMS

  can detect switch and router ...");

- a wide area network management system to manage and configure

  a network of switches (Cisco, Sec. of Feature Overview "... the

  NMS can detect switch and router ..."); and

- address registration information to be appended to a message sent

  between a first router of the network of routers and a first switch of

the network of switches over a connection between the first router

and the first switch (Cisco, Fig. 1, shows a typical network in which

ELMI address registration is in use).

4.   Regarding claim 2, Cisco further discloses the system of claim 1 , wherein the

address registration information comprises an interface index (Cisco, Sec. of

Feature Overview, "... The NMS uses the MIB to extract the IP address and

ifIndex of devices neighboring the managed device ...").

5.   Regarding claim 3, Cisco further discloses the system of claim 2, wherein the

interface index comprises a slot number from which the appended message was

sent (Cisco, Sec. of Prerequisties, " ELMI must be enabled on the Cisco router

and Cisco switch, which configures the slot number in the interface index. ").

6.   Regarding claim 4, Cisco further discloses the system of claim 2, wherein the

interface index comprises a port number from which the appended message was

sent (Cisco, Sec. of Prerequisties, " ELMI must be enabled on the Cisco router

and Cisco switch, which configures the port number in the interface index. ").

7.   Regarding claim 5, Cisco further discloses the system of claim 1 , wherein the

address registration information comprises an Interne Protocol address (Cisco,

Sec. of Feature Overview, "The Cisco Frame Relay MIB has been enhanced to

support the new ELMI information. The NMS uses the MIB to extract the IP

address and ifIndex of devices neighboring the managed. ").

8.   Regarding claim 6, Cisco further discloses the system of claim 1, wherein the

address registration information comprises spare bytes . (Cisco, Sec. of

Configuration Task, "... the following Sections for configuration tasks for the

Frame Relay ELMI Address Registration feature. Each task in the list is identified

as optional or required - which means the optional filed can be used as a spare

byte. ").

9.   Regarding claim 7, Cisco further discloses the system of claim 1, wherein the

router sends the appended message (Cisco, Sec. of Usage Guidelines, "...the

first line describes the LMI request that the router has sent to ..." & " .. you can

use this command to determine whether the router and the (Frame Relay switch)

are sending and receiving LMI packets properly...").

10.   Regarding claim 8, Cisco further discloses the system of claim 1, wherein the

switch sends the appended message (Cisco, Sec. of Usage Guidelines, "...the

Second line describes the LMI reply that the router has received from the switch

..." and "...you can use this command to determine whether (the router) and the

Frame Relay switch are sending and receiving LMI packets properly..").

11.   Regarding claim 9, Cisco further discloses the system of claim 1, wherein the

appended message is an enhanced local management interface message

(Cisco, Sec. of Future Review, "...the Second line describes the LMI reply that

the router has received from the switch ...").

12.   Regarding claim 10, Cisco further discloses the system of claim 1, wherein the

appended message is sent when the network of switches and the network of

routers are first configured (Cisco, Fig. 1, "...the first switch and router are first

configured, and also according to sec. of prerequisites, ELMI must be enables on

the Cisco router and the Cisco switch").

13.   Regarding claim 11, Cisco further discloses the system of claim 1, wherein the
appended message is sent when the network of switches or the network of
routers has a change in configuration (Cisco, Sec. of Future Overview, "...When
the management IP address of the switch changes, an asynchronous ELMI
version status message is sent to the neighboring device immediately..").

14.   Regarding claim 12, Cisco further discloses the system of claim 1, wherein the
appended message is sent at a regular interval (Cisco, Sec. of Future Overview,
"...the NMS '**polls**' the devices to collect this connectivity information..").

15.   Regarding claim 13, Cisco further discloses the system of claim 1, wherein the
local area network management system uses the address registration information
to map the network of switches (Cisco, Sec. of Feature Overview, "With the
Frame Relay ELMI Address Registration feature, the NMS can detect switch and
router interconnection and create an end-to-end network topology map for
network administrators", Table 2, "...yourseen counter maps to the
LAST RCVD SEQ counter of the switch..").

16.   Regarding claim 14, Cisco further discloses the system of claim 1, wherein the
local area network management system configures the network of switches
(Cisco, sec. of Prerequisites " ELMI must be enabled (configured) on the Cisco
switch").

17.   Regarding claim 15, Cisco further discloses the system of claim 1, wherein the
wide area network management system uses the address registration information

to map the network of routers (Cisco, Sec. of Feature Overview, "With the

Frame Relay ELMI Address Registration feature, the NMS can detect switch and

router interconnection and create an end-to-end network topology map for

network administrators") .

18.   Regarding claim 16, Cisco further discloses the system of claim 15, wherein the

wide area network management system configures the network of routers (Cisco,

Sec. of Configuring the IP Address to Be Used for ELMI Address Registration

Configuration, "... because no other IP address was configured, the

router will share an IP address of 0.0.0.0 and a valid ifIndex.. ").

19.   Regarding claims 17-32, have similar limitations as claims 1-16, which also

Involved in the switches, routers in the system that makes the interconnectivity

including the LAN and WAN. Therefore, claims 17-32 are rejected under

Cisco for the same reasons set forth in the rejection of claims 1-16.

20.   Regarding claims 33-48, have similar limitations as claims 1-16, which are also

Embedded the instruction codes (e.g. CLI) in the switches, and routers.

Therefore, claims 33-48 are rejected under Cisco for the same reasons set forth

in the rejection of claims 1-16.

21.   Regarding claims 49-64, the means function that have WAN. LAN, NMS, CLI

EMLI, UFM, and appended messages have similar limitations as claims 1-16,

Therefore, claims 49-64 are rejected under Cisco for the same reasons set forth

in the rejection of claims 1-16.

22.   Regarding claims 65-80, the devices of router, and switch that send appended

message from router or switch, have similar limitations as claims 1-16,

Therefore, claims 65-80 are rejected under Cisco for the same reasons set forth

in the rejection of claims 1-16.

23.   Regarding claim 81, Cisco further discloses a method, comprising:

- appending address registration information to a message (Cisco,

    Sec. of Configuration Examples, "Configuration the IP address to be

    used for ELMI address registration configuration - The following

    example shows how to configure the IP address to be used for

    ELMI address registration. Automatic IP address selection is

    automatically disabled when the IP address is configured. ELMI is

    enabled on serial interface 0.");

- sending the message between a router of a router network and a

    switch of a switch network (Cisco, fig. 1);

- using the address registration information to map the router

    network from a wide area network management system controlling

    the switch network (Cisco, Sec. of Feature Overview, "With the

    Frame Relay ELMI Address Registration feature, the NMS can

    detect switch and router interconnection and create an end-to-end

    network topology "**map**" for network administrators") ;

- configuring the router network using the wide area network

    management system (Cisco, sec. of Benefits, " ... using the ELMI

protocol and an enhanced MIB, an NMS can now detect

connectivity among the "**switches**" and routers in a network. This

new functionality allows for autodetection of the complete network

·   topology.");

- • using the address registration information to map the switch

    network from a local configuring the switch network using the local

    area network management system .(Cisco, sec. of Benefits, "

    ...using the ELMI protocol and an enhanced MIB, an NMS can now

    detect connectivity among the switches and "**routers**" in a network.

    This new functionality allows for autodetection of the complete

    network topology.");

Conclusion

Application's amendment necessitated the new ground(s) of rejection presented

in this Office action, Accordingly, **THIS ACTION IS MADE FINAL.** See MEPE

706.07(a). Applicant is reminded of the extension of time policy as set forth in 37CFR

1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first replay is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

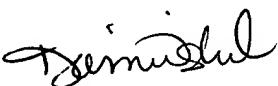mailed until after the end of the THREE MONTH shortened statutory period, then the

shortened statutory period will expire on the date advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTH from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kelvin Lin whose telephone number is 571-272-3898.

The examiner can normally be reached on Flexible 4/9/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, , Rupal Dharia can be reached on 571-272-3880. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

KYL
6/06/05

**KAMINI SHAH
PRIMARY EXAMINER**